50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for the Anastasia Island Beach Mouse and Threatened Status for the Southeastern Beach Mouse

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Fish and Wildlife Service proposes to determine the Anastasia Island beach mouse *(Peromyscus polionotus phasma)* as an endangered species and the southeastern beach mouse *(Peromyscus polionotus niveiventris)* as a threatened species pursuant to the Endangered Species Act of 1973 (Act), as amended. Both subspecies occur only on the Atlantic beaches of central Florida. This proposal, if made final, would implement the protection and recovery provisions afforded by the Act for the mice. The Service seeks data and comments from the public on this proposal.

DATES: Comments from all interested parties must be received by September 6, 1988. Public hearing requests must be received by August 19, 1988.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Field Supervisor, Jacksonville Field Office, U.S. Fish and Wildlife Service, 3100 University Boulevard South, Suite 120, Jacksonville, Florida 32216. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: David J. Wesley, Field Supervisor, at the above address (904/791-2580 or FTS 946-2580).

SUPPLEMENTARY INFORMATION:

Background

Beach mice are pale-colored, coastal-inhabiting subspecies of the oldfield mouse *(Peromyscus polionotus)*, a species which ranges widely throughout much of the southeastern United States. Beach mice occur only along the Atlantic coast of Florida and along the Gulf coast of Alabama and the Florida panhandle. Three subspecies of Gulf coast beach mice, the Alabama beach mouse *(Peromyscus polionotus ammobates)*, Perdido Key beach mouse *(P. p. trissyllepsis)*, and the Choctawhatchee beach mouse *(P. p. allophrys)*, have already been listed as endangered species pursuant to the Act (June 6, 1985; 50 CFR 23872). The present document proposes to list two of the Atlantic coast subspecies. One of these, the Anastasia Island beach mouse *(P. p. phasma)* is being proposed as an endangered species, and the other, the southeastern beach mouse *(P. p. niveiventris)*, is being proposed as

threatened. Both occur only in Florida. The Anastasia Island beach mouse was known historically from the mouth of the St. Johns River, Duval County, south to Matanzas Inlet, St. Johns County. The southeastern beach mouse formerly occurred from Ponce (Mosquito) Inlet, Volusia County, south to Hollywood Beach, Broward County (Humphrey 1987).

The Anastasia Island beach mouse *(Peromyscus polionotus phasma)* was named by Bangs in 1898 as a full species, *Peromyscus phasma*. Osgood (1909) relegated it to subspecific rank under the species *Peromyscus polionotus*. It is one of the largest of the beach mice, ten adults from the type locality averaged 138.5 millimeters (mm) in total length with an average tail length of 53 mm (Osgood 1909). Like all beach mice, it is considerably paler than inland races of *P. polionotus*. The coloration is light ochraceous buff on the back, with pure white underparts, unicolor tail, and rather indistinct white markings on the nose and face (Howell, unpubl. ms., *circa* 1940). The type locality is Point Romo, Anastasia Island, St. Johns County, Florida (Hall 1981).

The Southeastern beach mouse *(Peromyscus polionotus niveiventris)* was named by Chapman as *Hesperomys niveiventris* in 1889. Bangs placed it in the genus *Peromyscus* in 1898, and Osgood (1909) relegated it to subspecies rank under *Peromyscus polionotus*. This is the largest of the beach mice, with 10 adults averaging 139 mm in total length and 52 mm in tail length (Osgood 1909). It is slightly darker and more buffy than *Peromyscus polionotus phasma* but still considerably paler than most inland subspecies (it is similar in coloration to inland *P. p. rhoadsi* but is much larger in size) (Howell, unpubl. ms., *circa* 1940). The type locality is Oak Lodge, east peninsula opposite Micco, Brevard County, Florida (Hall 1981).

Both *Peromyscus polionotus phasma* and *P. p. niveiventris* are restricted to sand dunes mainly vegetated by sea oats *(Uniola paniculata)* and dune panic grass *(Paspalum amarulum)* and to the adjoining scrub, characterized by oaks *(Quercus sp.)*, sand pine *(Pinus clausa)*, and palmetto *(Serenoa repens)* (Humphrey and Barbour 1981, Humphrey 1987). Extine and Stout (1987) studied dispersion and movements of *Peromyscus polionotus niveiventris* on Merritt Island. The habitat of these mice consisted of three contiguous zones of vegetation running parallel with the beach and dune lines. Zone 1 was seaward and supported sea oats; Zone 2 was characterized by clumps of palmetto and sea grape *(Coccoloba uvifera)*, and expanses of open sand; Zone 3 was interior and consisted of dense scrub dominated by palmetto, sea grape, and wax myrtle *(Myrica cerifera)*. Zones 2 and 3 were found to be the preferred habitats of the beach mice, whereas Zone 1 was marginal.

Very little is known about the life history of any of the subspecies of beach mice. The following information pertains mostly to Gulf coast beach mice, but probably applies equally well to subspecies along the Atlantic coast, since Gulf coast and Atlantic coast beach mice are morphologically similar and live in similar habitats.

Blair (1951) found that food plants most utilized by beach mice are various beach grasses and sea oats. The fruits of beach grass are readily available to the mice, but those of sea oats are usually obtainable only after they have been blown down by heavy winds. These foods are often found stored in mouse burrows. Beach mice also probably eat invertebrates from time to time, especially in late spring and early summer when seeds are scarce (Ehrhart *in* Layne 1978).

Beach mice are burrow-inhabiting animals. Ehrhart (*in* Layne 1978), writing about the Atlantic coast subspecies *P. p. decoloratus*, noted that burrow entrances are usually placed on the sloping side of a dune at the base of a shrub or clump of grass. Often old burrows of ghost crabs are utilized, but more commonly the burrows are dug by the mice themselves (Blair 1951). A beach mouse's home range may contain up to 20 burrows in different parts of the range. The burrows are used as safe refuges, nesting sites, and food storage areas.

Along the Gulf coast, much breeding activity was evident in November, December, and early January, and large numbers of immature animals were in the population at that time (Blair 1951). Litter sizes range from two to seven, with an average of about four; young mice reach reproductive maturity as early as six weeks of age. In the laboratory, Bowen (1968) found that a female beach mouse is capable of producing 80 or more young during her lifetime, and that litters are produced regularly at 26-day intervals. Mortality is very high, however. Blair (1951) found that only 19.5 percent of the beach mice on the Gulf coast survived more than the four months from January to early May. Similar breeding activity for the two beach mice considered under this proposal can be expected.

Myers (1983) reported that the following could be beach mouse predators on the Gulf coast dunes: raccoons, skunks, snakes, great blue herons, domestic dogs, and domestic cats. All of these potential predators occur on the Atlantic coast and could prey on beach mice there as well.

Hall (1981) cites two historical records for the Anastasia Island beach mouse (*P. p. phasma*): the type locality at Point Romo, Anastasia Island, St. Johns County; and the beach dunes at the border of the St. Johns and Duval County line. This subspecies, therefore, could have ranged along the ocean dunes from the mouth of the St. Johns River in Duval County south to the end of Anastasia Island at Matanzas Inlet, St. Johns County. A recent survey of this subspecies by Humphrey (1987) was able to locate the mouse only on Anastasia Island, where its remaining habitat is fragmented and discontinuous, and populations are small. Much of its former habitat on Anastasia Island has been converted to lawn or concrete associated with development of houses and condominiums.

The original distribution of the southeastern beach mouse (*P. p. niveiventris*) was along the beach dunes from Ponce (Mosquito) Inlet, Volusia County, south along the coast to Hollywood Beach, Broward County. Recent studies by Humphrey (1987) have disclosed that this mouse still occurs in good numbers at Cape Canaveral and in smaller numbers to the north in Cape Canaveral National Seashore. To the south, from Sebastian Inlet to Hutchinson Island, only a few small, scattered remnant populations survive. South of Hutchinson Island, nearly all of the beach dune habitat has been totally destroyed by housing and condominium developments.

A third Atlantic coast beach mouse subspecies, *Peromyscus polionotus decoloratus*, formerly occurred between the ranges of *P. p. phasma* to the north and *P. p. niveiventris* to the south. This very pale race lived on the beach dunes from Matanzas Inlet, St. Johns County, south to Ponce (Mosquito) Inlet, Volusia County. Humphrey and Barbour (1981) searched extensively for *decoloratus* but were unable to find any existing populations. They concluded that extensive habitat destruction and alteration throughout its entire range had brought about its extinction. The Service intends to place *decoloratus* in Category 3A on the next list of candidate vertebrate species. Category 3A is for those that have been determined to be extinct.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to the Anastasia Island beach mouse (*Peromyscus polionotus phasma*) and the southeastern beach mouse (*Peromyscus polionotus niveiventris*) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* (1) Anastasia Island beach mouse (*Peromyscus polionotus phasma*)—Published literature records this subspecies from the type locality at Point Romo, Anastasia Island, St. Johns County, and along the beach dunes at the line between Duval and St. Johns Counties (Hall 1981). Therefore, this mouse could have occurred from the mouth of the St. Johns River in the north, to Anastasia Island in the south. Much of the dune habitat along this beach has been developed around Jacksonville and St. Augustine and no longer is suitable for beach mice. Some suitable habitat occurs between Ponte Vedra Beach and South Ponte Vedra Beach, St. Johns County, in the Guana River Wildlife Management Area, but Humphrey (1987) was unable to find the mice there. In fact, Bangs (1896) reported that these beach mice were absent from the beaches north of St. Augustine. Humphrey (1987) did find populations distributed along the length of Anastasia Island, but reported that much of their former habitat has been converted to lawn or concrete associated with development of houses and condominiums. As a result, the remaining habitat is fragmented and discontinuous, and the populations are small. The number of specimens caught by Humphrey (live-trapped and released) suggests that viable populations may remain only at the ends of Anastasia Island, along the publicly-owned dune grassland of both Anastasia State Recreation Area and Fort Matanzas National Monument. A proposed new bridge across the Matanzas Inlet, scheduled for construction early in the 1990's, would lead directly into the small amount of habitat (about 25 acres) available to this mouse on the Fort Matanzas National Monument. Unless this bridge is carefully planned and constructed, it could be extremely detrimental to the survival of the mouse in this area.

(2) Southeastern beach mouse (*Peromyscus polionotus niveiventris*)—this subspecies occurred on the sand dunes along the beach from Ponce (Mosquito) Inlet, Volusia County in the north to Hollywood Beach, Broward County, in the south (Hall 1981). Bangs (1898) found it to be "extremely abundant on all the beaches of the east peninsula from Palm Beach at least to Mosquito (Ponce) Inlet," and Howell (unpubl. mms., about 1940) found that it was abundant in the 1930's. I.J. Stout (personal communications to Humphrey 1987) also found it abundant in the middle and late 1970's on Cape Canaveral. However, by the early 1970's, M.H. Smith (personal communications to Humphrey 1987) found that most other populations had disappeared. Humphrey (1987), during extensive trapping for the subspecies in 1986, captured southeastern beach mice on Cape Canaveral National Seashore, Merritt Island, Cape Kennedy Air Force Station, the southern half of Sebastian Inlet State Recreation Area, and Pepper Park. He reported that the dune grassland at Cape Canaveral is excellent, extensive habitat for beach mice, and the population density there is apparently high. Northward, the habitat narrows to a single dune in Canaveral National Seashore, where population density appears to be lower. To the south, Humphrey's study suggested that beach mice no longer occur on East Peninsula, where the habitat has been severely disrupted by development. His sampling from Sebastian Inlet to Hutchinson Island shows that only a few, small, fragmented populations of beach mice remain. The subspecies apparently no longer occurs in the southern part of its range where beach development has destroyed its habitat at Jupiter Island, Palm Beach, Lake Worth, Hillsboro Inlet, and Hollywood Beach.

B. *Overutilization for commercial, recreation, scientific, or educational purposes.* Not applicable for either subspecies.

C. *Disease or predation.* (1) Anastasia Island beach mouse (*Peromyscus polionotus phasma*)—House Mice (*Mus musculus*) have colonized much of the dune grasslands on which the Anastasia Island beach mouse depends for survival. The inference that these two mice strongly compete is speculative, but Humphrey and Barbour (1981) presented *prima facie* evidence for competitive exclusion of other subspecies of beach mice by house mice. The situation on Anastasia Island is unprecedented because for the first time beach mice and house mice have been found to co-occur locally. Also, house cats (*Felis cattus*) are widespread on Anastasia Island. Blair (1951) and Bowen (1968) felt that house cats were extremely threatening to beach mouse populations on the Florida West Coast. The effect of these two exotic species—house mice and house cats—on the survival of beach mouse populations is speculative but may be quite important (Humphrey and Barbour 1981). Either a competitor or a predator alone can eliminate another species, and the effects of a competitor and predator together would be additive. On the assumption that native beach mice and exotic house mice compete strongly enough to cause competitive exclusion of the former, Humphrey (1987) inferred that the survival status of the Anastasia Island beach mouse was precarious on Anastasia Island. The population on the northern end of the island may soon disappear. The population appearing to be at least risk is at Fort Matanzas National Monument, where he recorded no house mice. Even here, however, Humphrey feels that the likelihood of colonization by house mice is high, and poses a threat to the beach mice.

(2) Southeastern beach mouse (*Peromyscus polionotus niveiventris*)—Humphrey (1987) found no evidence of house mice colonizing southeastern beach mouse habitat, but activity of house cats was widespread in the areas studied. Although the effects of house cat predation specifically on the southeastern beach mouse are not known, it is known that house cats are a major threat to beach mice elsewhere. Blair (1951) felt that predation by house cats was the single-most important factor affecting the chances of survival of a beach mouse population on Santa Rosa Island in the Florida panhandle, and Bowen (1968) was so concerned about the role of domestic cats as predators on Gulf coast beach mice that he avoided trapping mice wherever he found cat tracks on the beaches. It can be safely assumed that house cats pose as serious a threat to Atlantic coast beach mouse populations as they do to those on the Gulf coast.

D. *The inadequacy of existing regulatory mechanisms.* There are no regulatory mechanisms currently in effect that provide any sort of protection for either the Anastasia Island beach mouse or the southeastern beach mouse, or their habitat. Neither subspecies is listed by the State of Florida, and the Federal Government offers no protection on Federal lands beyond that which

applies to wildlife in general on such lands. Federal listing will provide protection to the animals themselves through section 9 of the Act, and to their habitat on Federal lands or on private lands where Federal funding or Federal permits are involved. In addition, Federal listing of these mice will automatically bring into effect State protection for them as provided for by Florida's Cooperative Agreement with the Federal Government under section 6 of the Act.

E. *Other natural or manmade factors affecting its continued existence.* (1) Anastasia Island beach mouse (*Peromyscus polionotus phasma*)—Except for each end of Anastasia Island, on the Fort Matanzas National Monument and the Anastasia State Recreation Area, the habitat is fragmented and discontinuous, and remaining populations are small. There is apparently little or no gene flow between these small disjunct populations and the probability of loss of genetic viability is high. (2) Southeastern beach mouse (*Peromyscus polionotus niveiventris*)—According to Humphrey (1987) beach erosion may soon become a threat to the population of this subspecies on the Canaveral National Seashore.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by these two subspecies of beach mice in determining to propose this rule. Based on this evaluation, the preferred action is to list the Anastasia Island beach mouse as an endangered species, and the southeastern beach mouse as a threatened species.

Relatively secure populations of the Anastasia Island beach mouse occur only on the northern and southern ends of Anastasia Island on the Fort Matanzas National Monument and Anastasia State Recreation Area. Elsewhere, all populations have either already been destroyed or face imminent threats from beachfront developments. Even on the Anastasia State Recreation Area the mice face what appear to be serious threats from competition with house mice and predation by house cats. On the Fort Matanzas National Monument, house cats are plentiful, and there is the distinct possibility that house mice may become established in the near future. In addition, a proposed new bridge across the Matanzas Inlet could be detrimental to the small amount of habitat remaining for this mouse on the Fort Matanzas National Monument. The survival of this subspecies is precarious and it is in danger of extinction throughout all of its range. Therefore, it qualifies for a proposed listing as an endangered species.

The range of the southeastern beach mouse has been substantially reduced and fragmented by habitat conversion and invasion of exotic animals over the past century. These threats are anticipated to continue, and the range of this subspecies ultimately may be limited to public lands that are properly managed. However, because substantial populations remain on the Canaveral National Seashore and on Merritt Island (both publicly owned), the subspecies is one that is not likely to become extinct but rather to become an endangered species within the foreseeable future. It therefore, qualifies for proposal as threatened rather than endangered.

Based on current knowledge, all other alternatives to the proposed listing of the Anastasia Island beach mouse as endangered and the southeastern beach mouse as threatened do not adequately reflect the biological facts and therefore have been rejetted. Critical habitat is not being proposed for reasons described in the next section.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate any habitat of a species which is considered to be critical habitat at the time a species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for the Anastasia Island beach mouse and the southeastern beach mouse at the present time. The only viable populations of both subspecies occur on lands managed by Federal or State agencies. These Federal and State agencies have been informed of the occurrence of the mice on lands they manage and must take measures to provide necessary protection for both the mice and their habitat. Therefore, a determination of critical habitat would provide no benefits to the mice over and above that provided by the listing action alone. Outside of Federal and State lands, these beach mice occur in very small, disjunct populations on a number of privately owned parcels of land. To determine each of the small parcels of land as critical habitat would be impossible from a practical standpoint, and might be detrimental to the populations that inhabit them by calling public attention to the presence of the mice. Publication of maps and precise descriptions delineating these areas, as required for a determination of critical habitat, could lead vandals and curiosity seekers to them and might as a consequence result in the destruction of the very fragile habitat that a critical habitat determination is intended to protect. Therefore, since determination of critical habitat on public lands would not benefit the mice, and determination of critical habitat on private lands might be harmful to them, it is not prudent to determine critical habitat for the conservation of the Anastasia Island beach mouse or the southeastern beach mouse.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402. Section 7(a)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to insure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

The Federal agencies that might be affected by the Anastasia Island beach mouse and/or southeastern beach mouse proposals and listings include the U.S. Air Force (Cape Canaveral Air Force Station and Patrick Air Force Base), NASA (Kennedy Space Center),

the U.S. Fish and Wildlife Service (Merritt Island and Hobe Sound National Wildlife Refuges), the National Park Service (Canaveral National Seashore and Fort Matanzas National Monument), and, perhaps, the Federal Emergency Management Agency (FEMA).

With the publication of this proposed rule, these Federal agencies will now be required to informally confer with the Service on their activities that are likely to jeopardize the continued existence of the beach mice. If these mice are listed, the agencies need to insure that their activities, authorized, funded, or carried out, are not likely to jeopardize the continued existence of these animals. Except for the National Park Service at the Fort Matanzas National Monument, and, perhaps, the FEMA, impacts on Federal agencies are expected to be minimal. In the case of the Fort Matanzas National Monument, the Park Service will need to insure that a new bridge proposed for the Matanzas Inlet will not jeopardize the survival of the Anastasia Island beach mouse on land it manages at the Monument.

Under the National Flood Insurance Program the FEMA is required to determine whether communities are eligible for Federal flood insurance. If the determination of eligibility for flood insurance by the FEMA authorizes and/or in effect partially subsidizes construction activity that may affect a listed species, then the FEMA must request the initiation of formal section 7(a)(2) consultation. If the species is only proposed for listing, then the FEMA must informally confer under section 7(a)(4). Due to the unknown or hypothetical nature of the consulations and/or conferences, if any, that may occur, it is not now known whether any activities or FEMA's management costs will be affected.

There will be no effect on private landowners from the listing unless their activities involve use of Federal funds or require Federal permits. In such cases, the funding or permitting Federal agency must insure that the activities will not jeopardize the continued existence of the beach mice before they can provide the funds or issue the permits to the private landowner. However, the Service is not aware of any cases at the present time where activities of private landowners would be affected by this requirement.

The Act and implementing regulations found at 50 CFR 17.21 and 17.31 set forth a series of general prohibitions and exceptions that apply to all endangered and threatened wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take, import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered and threatened wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22, 17.23 and 17.32. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or incidental take in connection with otherwise lawful activities. For threatened species, there are also permits for zoological exhibition, educational purposes, or special purposes consistent with the purposes of the Act. In some instances, permits may be issued during a specified period of time to relieve undue economic hardship that would be suffered if such relief were not available.

Public Comments Solicited

The Service intends that any final action resulting from this proposal will be accurate and as effective as possible. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning any aspect of these proposed rules are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to the Anastasia Island beach mouse and/or southeastern beach mouse;

(2) The location of any additional populations of these beach mice, and the reasons why any habitat should or should not be determined to be critical habitat for them as provided by Section 4 of the Act;

(3) Additional information concerning the range and distribution of these beach mice; and

(4) Current or planned activities in the subject areas and their possible impacts on the Anastasia Island beach mouse and the southeastern beach mouse.

Final promulgation of the regulations on the Anastasia Island beach mouse and the southeastern beach mouse will take into consideration the comments and any additional information received by the Service, and such communications may lead to adoption of final regulations that differ from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be filed within 45 days of the date of the proposal. Such requests must be made in writing and addressed to the Field Supervisor, Jacksonville Field Office, U.S. Fish and Wildlife Service, 3100 University Boulevard South, Suite 120, Jacksonville, Florida 32216.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environment Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

References Cited

Bangs, O. 1898. The land mammals of peninsular Florida and the coastal region of Georgia. Boston Soc. Nat. Hist. Proc. 28:157–235.

Blair, W.F. 1951. Population structure, social behavior and environmental relations in a natural population of the beach mouse (*Peromyscus polionotus leucocephalus*). Contrib. Lab. Vert. Biol., Univ. Michigan 48:1–47.

Bowen, W.W. 1968. Variation and evolution of gulf coast populations of beach mice (*Peromyscus polionotus*). Bull. Florida State Mus., Biol. Sci. 12:1–91.

Chapman, F.M. 1889. Description of two apparently new species of the genus *Hesperomys* from Florida. Amer. Mus. Nat. Hist. Bull. 2:117.

Extine, D.D., and I.J. Stout. 1987. Dispersion and habitat occupancy of the beach mouse *Peromyscus polionotus niveiventris*. J. Mammal. 68:297–304.

Hall, E.R. 1981. The mammals of North America. John Wiley and Sons, New York. 1175 pp.

Humphrey, S.R., and D.B. Barbour. 1981. Status and habitat of three subspecies of *Peromyscus polionotus* in Florida. J. Mammal. 62:840–844.

Humphrey, S.R. 1987. Status survey of seven Florida mammals. Florida Cooperative Fish and Wildlife Research Unit Tech. Rept. No. 25. Gainesville, Florida. 39 pp.

Layne, J.N. (ed.). 1978. Rare and endangered biota of Florida, Volume I, Mammals. Univ. Presses of Florida, Gainesville, pp. 18–19.

Myers, J.M. 1983. Status, microhabitat, and management recommendations for *Peromyscus polionotus* on gulf coast beaches. Rept. to U.S. Fish and Wildlife Service, Atlanta, Georgia. 29 pp.

Osgood, W.H. 1909. Revision of the mice of the American genus *Peromyscus*. North American Fauna 28:85 pp.

Sealander, R.K., M.H. Smith, S.Y. Yang, W.E. Johnson, and J.B. Gentry. 1971. Biochemical polymorphism and systematics in the genus

Peromyscus. I. Variation in the old-field mouse (*Peromyscus polionotus*). Univ. Texas Studies in genetics 6:49–90.

Author

The primary author of this proposed rule is John L. Paradiso, Jacksonville Field Office, U.S. Fish and Wildlife Service, 3100 University Boulevard South, Suite 120, Jacksonville, Florida 32216, (904) 791–2580 or FTS 946–2580.

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Proposed Regulations Promulgation

Accordingly, it is hereby proposed to amend Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for Part 17 continues to read as follows:

Authority: Pub. L. 93–205, 87 Stat. 884; Pub. L. 94–359, 90 Stat. 911; Pub. L. 95–632, 92 Stat. 3751; Pub. L. 96–159, 93 Stat. 1225; Pub. L. 97–304, 96 Stat. 1411 (16 U.S.C. 1531 *et sq.*); Pub. L. 99–625, 100 Stat. 3500 (1986), unless otherwise noted.

2. It is proposed to amend § 17.11(h) by adding the following, in alphabetical order under MAMMALS, to the List of Endangered and Threatened Wildlife:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
MAMMALS							
*	*	*	*	*	*		
Mouse, Anastasia Island beach.	*Peromyscus polionotus phasma.*	U.S.A. (FL)	Entire	E		NA	NA
Mouse, southeastern beach	*Peromyscus polionotus niveiventris.*	U.S.A. (FL)	Entire	T		NA	NA
*	*	*	*	*	*		

Dated: June 3, 1988.

Susan Recce,

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 88–14909 Filed 7–1–88; 8:45 am]

BILLING CODE 4310–55–M